

Can exercise therapy improve symptoms and outcomes in individuals with shoulder instability?

To answer this question, we performed a comprehensive search of the PubMed database (September 2011) for randomized, controlled trials (RCTs) and systematic reviews that addressed this specific research question.

Currently, there are few published RCTs examining the effect of exercise therapy for shoulder instability. One non-randomized intervention (3) and one randomized clinical trial (5) were reviewed, and exercises were selected from one clinical guideline (1) and two expert opinions (2,4).

Among 51 patients with multidirectional shoulder instability, Kiss et al found surgery followed by exercise to be more beneficial than exercise alone in restoring normal motion and muscle activation patterns during humeral elevation (3). A strength of the study was the use of motion analysis and EMG to assess shoulder function. However, limitations included lack of blinding, randomization, and

reporting of exercise compliance. The exercise group was significantly younger, which might have affected adherence to the program.

Kim et al conducted a randomized trial in 62 adults with recurrent unidirectional anterior shoulder instability (5). All patients underwent arthroscopic Bankart repair with suture anchors, followed by early motion or 3 wks of immobilization. Both groups completed similar exercise programs. After 6 wks, pain was significantly lower with early motion. In addition, early motion resulted in a significantly faster time to recovery of motion and activity. During the follow up period, no recurrences of instability occurred, indicating that early motion was equally safe compared to immobilization. A limitation of this study was that the patients enrolled were only those with a Bankart lesion limited to 1 cm above the mid-glenoid notch and an otherwise healthy labrum. In a population with more severe lesions or multidirectional instability, these results may not apply.

Due to the lack of RCTs available for review, it is not clear what type of exercise therapy is most effective for patients with shoulder instability.

Check with the provider of this newsletter to learn more about exercises appropriate for this condition.

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3. Kiss RM, Illyés A, Kiss J. Physiotherapy vs capsular shift and physiotherapy in multidirectional shoulder joint instability. *J Electromyogr Kinesiol.* 2010 Jun;20(3):489-501. Epub 2009 Oct 14. PubMed PMID: 19833530.
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